DOCKET FILE COPY ORIGINAL

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September 28, 2000

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: AMNET US - Request for Waiver
ET Docket 98-237
For Modification to Satellite Earth Station E000354
Coral Springs, FL

Dear Ms. Salas:

Transmitted herewith on behalf of AMNET US, is an original and four (4) copies of a Request for Waiver of the Commission's Rules restricting construction and operation of fixed satellite earth stations in the 3650-3700 MHz band. AMNET is seeking a waiver in connection with its contemporaneously filed application for modification of satellite earth station E000354 seeking authority to operate in the extended C-Band for downlink into the United States. A copy of that application is attached to this Request for Waiver.

Should any questions arise in connection with this application, kindly communicate directly with the undersigned.

Respectfully submitted,

Howard J. Barr
Counsel

Enclosure
cc: Ms. Sylvia Lam (Room TW A-325)
Mr. Julius P. Knapp (OET – Room 7-B133)

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Amendment of the Commission's	)
Rules with Regard to the 3650-3700 MHz	)
Government Transfer Band,	)
ET Docket 98-237, Notice of Proposed	)
Rulemaking and Order	)

REQUEST FOR WAIVER

Amnet US, by counsel, hereby respectfully requests a waiver of the Commission's rules restricting construction and operation of fixed satellite earth stations in the 3650-3700 MHz band (the "extended C-Band"). This waiver request is being filed in conjunction with a modification application requesting permanent authorization to operate a downlink in the extended C-Band (3625-3700 MHz) with a licensed fixed earth station antenna in Coral Springs, Florida. A copy of the application that is being filed simultaneously is attached. The following is shown in support thereof:

Licensing History of The Coral Springs Earth Station

The proposed extended C-Band downlink will operate as part of a recently authorized fixed satellite earth station licensed to Amnet (E000354; SES-LIC-20000712-01155). In addition Amnet has pending applications for two additional antennae – one in the Ku-Band and one in the C-Band – at the Coral Springs facility. Amnet is separately applying for modification of the E000354 facility for authority to transmit in the extended C-Band (5859-5925 MHz). Amnet seeks this waiver of the Commission's rules to operate the corresponding downlink into the United States in the extended C-Band at the

Coral Springs site in order to take advantage of additional satellite capacity available to Amnet at the site. Grant of this request will enable Amnet to provide additional flexibility and services to its international customers.

Background of Extended C-Band Freeze and Relief Orders

Amnet has been offered extended C-Band capacity on the New Skies satellite 806 ("NSS806"). New Skies is a wholly-owned United States subsidiary of New Skies Satellite N.V. ("New Skies"). New Skies is one of only three satellite systems that currently offers global satellite coverage. The New Skies satellite network is currently comprised of five in-orbit satellites operating in the Ku-Band, standard C-Band and extended C-Band. Currently an independent company, New Skies was divested from Intelsat effective December 1, 1998. Eighteen days after the creation of New Skies, the Commission issued an order freezing all licensing activities for fixed satellite earth stations in the extended C-Band. *See Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band,* ET Docket 98-237, *Notice of Proposed Rulemaking and Order,* 14 FCC Rcd. 1295 (1998) (the "*Freeze Order*"). As a result of the *Freeze Order*, Amnet (and New Skies) was immediately restricted in its ability to utilize the extended C-Band for operations in the United States

New Skies has actively pursued relief from the freeze on fixed satellite operations in the extended C-Band, both independently and as a part of the an ad hoc coalition of satellite operators, customers and potential telemetry, tracking and control users (the "C-Band Coalition"). *See Request for Emergency Relief,* filed March 26, 1999, and *Modified Request for Emergency Relief and Request for Expedited Action*, filed October 28, 1999, by New Skies; Letter from the C-Band Coalition filed December 16, 1999; *see also ex*

parte notices, filed April 9, 12, 13, 15 and 19, 1999, November 3 and 4, 1999, December 22 and 28, 1999, by New Skies. New Skies' submissions demonstrate that the extended C-Band is necessary to provide critical relief from the congestion in the over-crowded standard C-Band. More importantly, by restricting its access to affordable space segment capacity, the *Freeze Order* acts as a substantial impediment to Amnet's growth and ability to compete in the increasingly competitive fixed satellite services market place.

On May 17, 2000, seventeen months after instituting the *Freeze Order*, the Commission adopted an order providing partial and immediate relief from the freeze on operations in the extended C-Band. *See Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band,* ET Docket 98-237, *Memorandum Opinion and Order,* FCC 00-181 (adopted May 17, 2000) (the "*Relief Order*"). In the *Relief Order*, the Commission agreed to reopen access to the extended C-Band spectrum for fixed satellite users in the United States immediately but on a limited basis. Specifically, the *Relief Order* will allow modifications to existing fixed satellite earth stations and construction of new stations in the extended C-Band so long as the station is within a ten mile radius of an existing licensed earth station operating in the extended C-Band.

The Coral Springs site is approximately twenty-two miles from the nearest existing extended C-Band earth station located at 25-58-32 NL, 80-21-11 WL (Miramar). Amnet hereby seeks a waiver of the ten-mile radius restriction on the scope of relief provided in the *Relief Order* to allow it to operate a downlink at the Coral Springs site in the extended C-Band as provided in the attached application.

Need for Waiver

Amnet currently has one C-Band antennae licensed to the Coral Springs site. In conjunction with the extended C-Band *uplink* services Amnet intends to provide to international customers from the Coral Springs facility, Amnet would benefit from a greater ability to serve its customers if *downlink* operations in the extended C-Band were available at the Coral Springs site. With capacity available in the extended C-Band for both uplink and downlink services, Amnet would have increased flexibility to provide critical Internet backbone services that link users in the United States with users throughout the world, as well as other international broadband services (including video news feeds, video programming and high speed data services) to existing and new customers. The grant of this waiver request and the underlying application would thereby increase competition and promote the public interest.

The grant of this waiver request for a single site in Florida would not substantially prejudice the availability of the extended C-Band spectrum for future terrestrial use. As the Commission explained in the *Relief Order*, "the introduction of new extended C-Band earth stations in close proximity to an existing grand fathered extended C-Band earth station will not substantially impede the opportunities for the introduction of fixed [terrestrial] services in the 3650-3700 MHz band." *Relief Order*, ¶ 4. The Coral Springs site, although more than ten miles from the Miramar site, is still "proximate" to the existing site, in accordance with the standard established in the Commission's *Relief Order*. Indeed, the difference between ten miles and twenty-two miles is not significant. Moreover, the *Relief Order* does not describe any engineering or other factor on which the Commission relied in selecting a ten-mile limit that would justify denying this waiver

request for technical reasons. The grant of this waiver request therefore will not significantly limit the available spectrum for use by future terrestrial services, nor will it create a material impediment to any future licensee in the band who would already be subject to the existing earth station operations in the extended C-Band at the Amnet location.

In addition, Amnet did not have the ability or opportunity to "obtain suitable real estate for the placement of new extended C-Band earth stations near grand fathered extended C-Band earth stations," as suggested by the Commission in the *Relief Order*. Amnet believes the grant of this waiver and the underlying application will serve the public interest by promoting competitive new services in the international telecommunications marketplace at the earliest possible opportunity, helping to alleviate the shortage of space segment capacity and giving the companies the opportunity to make efficient and effective use of a significant existing satellite asset. The grant of this waiver by the Commission would promote the public interest.

Eligibility for Waiver

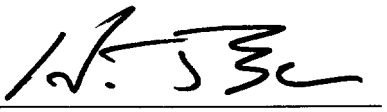
This application contains all of the legal and technical information required by the Commission's rules to support the grant of this waiver request and the authorization of the use of the extended C-Band at the Coral Springs site. Coordination with commercial operators is not required prior to the use of the extended C-Band, and there is no technical obstacle to the grant of this waiver request and the underlying application.

CONCLUSION

Based on the foregoing Amnet respectfully requests prompt action by the Commission on this waiver request and the underlying application for authority to operate in the extended C-Band.

Respectfully submitted,

AMNET US

By: 

Howard J. Barr
Its Counsel

Pepper & Corazzini, LLP
1776 K Street, N.W.
Suite 200
Washington, D.C. 20006
(202) 296-0600

September 28, 2000

HJB/de
I:\wp\2730\Request for waiver.doc

READ INSTRUCTIONS CAREFULLY BEFORE PROCEEDING

(1) LOCKBOX # 358160

FEDERAL COMMUNICATIONS COMMISSION

REMITTANCE ADVICE

PAGE NO. 1 OF 1

APPROVED BY OMB 3060-0589

SPECIAL USE

FCC USE ONLY

SECTION A - PAYER INFORMATION

(2) PAYER NAME (If paying by credit card, enter name exactly as it appears on your card)
AMNET US LLC Attn: Mr. Chris Pepper

(3) TOTAL AMOUNT PAID (dollars and cents)
$ 145.00

(4) STREET ADDRESS LINE NO. 1
800 Corporate Drive, Suite 408

(5) STREET ADDRESS LINE NO. 2

(6) CITY
Ft. Lauderdale

(7) STATE
FL

(8) ZIP CODE
33334

(9) DAYTIME TELEPHONE NUMBER (Include area code)
954/772-8733

(10) COUNTRY CODE (If not in U.S.A.)

IF PAYER NAME AND THE APPLICANT NAME ARE DIFFERENT, COMPLETE SECTION B
IF MORE THAN ONE APPLICANT, USE CONTINUATION SHEETS (FORM 159-C)

SECTION B - APPLICANT INFORMATION

(11) APPLICANT NAME (If paying by credit card, enter name exactly as it appears on your card)

(12) STREET ADDRESS LINE NO. 1

(13) STREET ADDRESS LINE NO. 2

(14) CITY

(15) STATE

(16) ZIP CODE

(17) DAYTIME TELEPHONE NUMBER (Include area code)

(18) COUNTRY CODE (If not in U.S.A.)

COMPLETE SECTION C FOR EACH SERVICE. IF MORE BOXES ARE NEEDED, USE CONTINUATION SHEETS (FORM 159-C)

SECTION C - PAYMENT INFORMATION

(19A) FCC CALL SIGN/OTHER ID	(20A) PAYMENT TYPE CODE (PTC)	(21A) QUANTITY	(22A) FEE DUE FOR (PTC) IN BLOCK 20A	FCC USE ONLY
F312-Receive	C G X	1	$ 145.00	

(23A) FCC CODE 1

(24A) FCC CODE 2

(19B) FCC CALL SIGN/OTHER ID	(20B) PAYMENT TYPE CODE (PTC)	(21B) QUANTITY	(22B) FEE DUE FOR (PTC) IN BLOCK 20B	FCC USE ONLY
			$	

(23B) FCC CODE 1

(24B) FCC CODE 2

(19C) FCC CALL SIGN/OTHER ID	(20C) PAYMENT TYPE CODE (PTC)	(21C) QUANTITY	(22C) FEE DUE FOR (PTC) IN BLOCK 20C	FCC USE ONLY
			$	

(23C) FCC CODE 1

(24C) FCC CODE 2

(19D) FCC CALL SIGN/OTHER ID	(20D) PAYMENT TYPE CODE (PTC)	(21D) QUANTITY	(22D) FEE DUE FOR (PTC) IN BLOCK 20D	FCC USE ONLY
			$	

(23D) FCC CODE 1

(24D) FCC CODE 2

SECTION D - TAXPAYER INFORMATION (REQUIRED)

(25) PAYER TIN 0 3 6 4 2 3 3 6 2 5

(26) COMPLETE THIS BLOCK ONLY IF APPLICANT NAME IN B-11 IS DIFFERENT FROM PAYER NAME IN A-2)
APPLICANT TIN 0

SECTION E - CERTIFICATION

(27) CERTIFICATION STATEMENT

I, _____ (PRINT NAME), Certify under penalty of perjury that the foregoing and supporting information are true and correct to the best of my knowledge, infomation and belief. SIGNATURE _____

SECTION F - CREDIT CARD PAYMENT INFORMATION

(28)

☐ MASTERCARD

MASTERCARD/VISA ACCOUNT NUMBER:

EXPIRATION DATE:
MONTH YEAR

☐ VISA

I hereby authorize the FCC to charge my VISA or MASTERCARD for the service(s)/authorization(s) herein described. ▶

AUTHORIZED SIGNATURE

DATE

SEE PUBLIC BURDEN ESTIMATE ON REVERSE

FCC FORM 159 JULY 1997 (REVISED)

AMNET US L.L.C.

VENDOR: FCC01

CHECK NO. 1656

INVOICE NO	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN	NET CHECK AMOUNT
FEE1	09/22/00	145.00	145.00	.00	145.00
				Check Total	145.00

CHECK NO	CHECK DATE	VENDOR NO
1656	09/22/00	FCC01

Harris Trust and Savings Bank
Chicago, IL

AMNET US L.L.C.
800 CORPORATE DRIVE, SUITE 408
FT. LAUDERDALE, FL 33334

CHECK NO. 001656

2-28
710

CHECK AMOUNT
$145.00

ONE HUNDRED FORTY-FIVE AND 00/100 DOLLARS

PAY
TO THE
ORDER OF Federal Communications Commission
REGULATORY FEES
P.O. BOX 358835
PITTSBURGH PA 15251-5835

AUTHORIZED SIGNATURE

THE SECURITY FEATURES ON THIS DOCUMENT INCLUDE A BLUE BACKGROUND, BLEED THROUGH MICR NUMBERING AND A MICROPRINT SIGNATURE LINE NOTED BY MP

⑈00001656⑈ ⑆071000288⑆ 175⑈299⑈7⑈

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September 28, 2000

Federal Communications Commission
International Bureau - Earth Stations
P.O. Box 358160
Pittsburgh, PA 15251-5160

RE: Fee Code (CGX) – $145.00 Check Enclosed
AMNET US - FCC Form 312
For Modification to Satellite Earth Station E000354
Coral Springs, FL

Dear Mr./Ms.:

Transmitted herewith on behalf of AMNET US, is an original and two (2) copies of an application on FCC Form 312 for modifications to the above-referenced satellite earth station. By this application, Amnet seeks authority for downlink operations in the extended C-Band. Amnet is seeking a waiver for the addition of these frequencies, a copy of which is attached.

Also enclosed is a check made payable to the FCC in the amount of $145.00 in payment of the required filing fee along with an FCC Form 159.

Should any questions arise in connection with this application, kindly communicate directly with the undersigned.

Respectfully submitted,

Howard J. Barr
Counsel

Enclosure
cc: Ms. Sylvia Lam (Room TW A-325)
Mr. Julius P. Knapp (OET – Room 7-B133)

FCC 312
Main Form

Approved by OMB 3060-0678
Est. Avg. Burden Hours Per Response: 11 Hrs.

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS

FCC Use Only
File Number:
Call Sign:
Fee Number

APPLICANT INFORMATION

1. Legal Name of Applicant AMNET US		2. Voice Telephone Number 954/772-8733
3. Other Name Used for Doing Business (if any)		4. Fax Telephone Number 954/772-7718
5. Mailing Street Address or P.O. Box 800 Corporate Drive, Suite 408 ATTENTION: Chris Pepper	6. City Ft. Lauderdale	
	7. State / Country (if not U.S.A.) Florida	8. Zip Code 33334
9. Name of Contact Representative (If other than applicant) Howard J. Barr		10. Voice Telephone Number 202/296-0600
11. Firm or Company Name Pepper & Corazzini		12. Fax Telephone Number 202/296-5572
13. Mailing Street Address or P.O. Box 1776 K Street, N.W., Suite 200 ATTENTION: Howard J. Barr	14. City Washington	
	15. State / Country (if not U.S.A.) DC	16. Zip Code 20006

CLASSIFICATION OF FILING

17. Place an "X" in the box next to the classification that applies to this filing for both questions a. and b. Mark only one box for 17a and only one box for 17b.

- [X] a1. Earth Station
- [ ] a2. Space Station

- [ ] b1. Application for License of New Station
- [ ] b2. Application for Registration of New Domestic Receive-Only Station
- [ ] b3. Amendment to a Pending Application
- [X] b4. Modification of License or Registration
- [ ] b5. Assignment of License or Registration
- [ ] b6. Transfer of Control of License or Registration
- [ ] b7. Notification of Minor Modification
- [ ] b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite
- [ ] b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United States
- [ ] b10. Other (Please Specify): _____

18. If this filing is in reference to an existing station, enter: Call sign of station: E000354	19. If this filing is an amendment to a pending application enter: (a) Date pending application was filed: (b) File number of pending application:

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of service(s): Place an "X" in the box(es) next to all that apply.

[X] a. Fixed Satellite [ ] c. Radiodetermination Satellite [ ] e. Direct to Home Fixed Satellite
[ ] b. Mobile Satellite [ ] d. Earth Exploration Satellite [ ] f. Digital Audio Radio Service [ ] g. Other (please specify) _____

21. STATUS: Place an "X" in the box next to the applicable status. Mark only one box.

[ ] a. Common Carrier [X] b. Non-Common Carrier

22. If earth station applicant, place an "X" in the box(es) next to all that apply.

[ ] a. Using U.S. licensed satellites [X] b. Using Non-U.S. licensed satellites

23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Sec. 214 filings. Mark only one box. Are these facilities:

[ ] a. Connected to the Public Switched Network [ ] b. Not connected to the Public Switched Network

24. FREQUENCY BAND(S): Place an "X" in the box(es) next to all applicable frequency band(s).

[ ] a. C-Band (4/6 GHz)
[ ] b. Ku-Band (12/14 GHz) [X] c. Other (Please specify) Extended C-Band 3625-3700 MHz

TYPE OF STATION

25. CLASS OF STATION: Place an "X" in the box next to the class of station that applies. Mark only one box.

[X] a. Fixed Earth Station [ ] b. Temporary-Fixed Earth Station [ ] c. 12/14 GHz VSAT Network [ ] d. Mobile Earth Station [ ] e. Space Station [ ] f. Other (Specify) _____

If space station applicant, go to Question 27.

26. TYPE OF EARTH STATION FACILITY Mark only one box.

[ ] a. Transmit/Receive [ ] b. Transmit-Only [X] c. Receive-Only

PURPOSE OF MODIFICATION OR AMENDMENT

27. The purpose of this proposed modification or amendment is to: Place an "X" in the box(es) next to all that apply.

[ ] a -- authorization to add new emission designator and related service
[ ] b -- authorization to change emission designator and related service
[ ] c -- authorization to increase EIRP and EIRP density
[ ] d -- authorization to replace antenna
[ ] e -- authorization to add antenna
[ ] f -- authorization to relocate fixed station
[ ] g -- authorization to change assigned frequency(ies)
[X] h -- authorization to add Points of Communication (satellites & countries)
[ ] i -- authorization to change Points of Communication (satellites & countries)
[ ] j -- authorization for facilities for which environmental assessment and radiation hazard reporting is required
[X] k -- Other (Please Specify) Authorization to add extended C-Band receive frequencies

ENVIRONMENTAL POLICY

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental impact as defined by 47 CFR 1.1307?
If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. §§ 1.1308 and 1.1311, as an exhibit to this application. [ ] YES [ ] NO

A Radiation Hazard Study must accompany all applications as an exhibit for new transmitting facilities, major modifications, or major amendments. Refer to OET Bulletin 65.

ALIEN OWNERSHIP

29. Is the applicant a foreign government or the representative of any foreign government?	☐ YES	☒ NO
30. Is the applicant an alien or the representative of an alien?	☐ YES	☒ NO
31. Is the applicant a corporation organized under the laws of any foreign government?	☐ YES	☒ NO
32. Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	☒ YES	☐ NO
33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	☐ YES	☒ NO
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit, the identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.		

BASIC QUALIFICATIONS

35. Does the applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	☐ YES	☒ NO
36. Has the applicant or any party to this application had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
37. Has the applicant, or any party to this application, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the proceeding two items? If Yes, attach as an exhibit, an explanation of the circumstances.	☐ YES	☒ NO
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, addresses, and citizenship of those stockholders owning of record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary (ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		
41. By checking Yes, the undersigned certifies, that neither the applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	☒ YES	☐ NO
42a. Does the applicant intend to use a non-U.S. licensed satellite to provide service in the United States? If yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. § 25.137, as appropriate. If no, proceed to question 43.	☒ YES	☐ NO
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station? _____		

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B: (Technical and Operational Description)

B4. Earth Station Antenna Facilities: Use additional pages as needed. No Changes

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (_____dBi at _____GHz)
On File						

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID**	(b) Antenna Structure Registration No.	Maximum Antenna Height (c) Above Ground Level (meters)	Maximum Antenna Height (d) Above Mean Sea Level (meters)	(e) Building Height Above Ground Level (meters)***	(f) Maximum Antenna Height Above Rooftop (meters)***	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
On File		No Changes	No Changes				

Notes: * If this is an application for a VSAT network, identify the site (Item B1b, Schedule B, Page 1) where each antenna is located. Also include this Site-ID on Schedule B, Page 5.

** Identify each antenna in VSAT network or multi-antenna station with a unique identifier, such as HUB, REMOTE1, A1, A2, 10M, 12M, 7M, etc. Use this same antenna ID throughout tables B4, B5, B6, and B7 when referring to the same antenna.

*** Attach sketch of site or exemption, See 47 CFR Part 17.

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B: (Technical and Operational Description)

B6. Frequency Coordination Limits: Use additional pages as needed. Add Frequencies; Extend Arc.

(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit**	(d) Range of Satellite Arc Western Limit**	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)
	3625.00 - 4200.00	6 WL	143 WL	5.4	15.9	97.1	267.1	

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and orbital arc range is associated.

** If operating with geostationary satellites, give the orbital arc limits and the associated elevation and azimuth angles. If operating with non-geostationary satellites, give the notation "NON-GEO" for the satellite arc and give the minimum operational elevation angle and the maximum azimuth angle range.

43. Description. (Summarize the nature of the application and the services to be provided).
Add Extended C-Band Receive Frequencies. Extend satellite arc to include international satellites.

Exhibit No.	Identify all exhibits that are attached to this application.
A	Radiation Hazard Study
B	Frequency Coordination Report
C	FAA Notification Not Required
D	Coordination with Another Country
E	Ownership

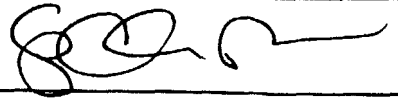
CERTIFICATION

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

44. Applicant is a (an): (Place an "X" in the box next to applicable response.)

☐ a. Individual ☐ b. Unincorporated Association ☐ c. Partnership ☒ d. Corporation ☐ e. Governmental Entity ☐ f. Other (Please specify) _____

45. Typed Name of Person Signing	46. Title of Person Signing
CHRIS PEPPER	VICE PRESIDENT

47. Signature	48. Date
	9/25/00

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

FCC 312
Schedule B

FEDERAL COMMUNICATIONS COMMISSION
SATELLITE EARTH STATION AUTHORIZATIONS
(Technical and Operational Description)

Page 1: Location

(Place an "X" in one of the blocks below)

☐ License of New Station ☐ Registration of New Domestic Receive-Only Station ☐ Amendment to a Pending Application ☒ Modification of License/Registration ☐ Notification of Minor Modification

B1. Location of Earth Station Site. If temporary-fixed, mobile, or VSAT remote facility, specify area of operation and point of contact. If VSAT hub station, give its location. For VSAT networks attach individual Schedule B, Page 1 sheets for each hub station and each remote station. Individually provide the Location, Points of Communications, and Destination Points for each hub and remote station.

B1a. Station Call Sign	B1b. Site Identifier (HUB, REMOTE1, etc.)	B1c. Telephone Number	B1j. Geographic Coordinates N/S, Deg. - Min. - Sec. - E/W	B1k. Lat./Lon. Coordinates are:
		954/772-8733	Lat. 26 16' 42.3" N	☐ NAD-27
			Lon. 80 17' 34.2" W	☒ NAD-83

B1d. Street Address of Station or Area of Operation	B1e. Name of Contact Person
12410 NW 39th Street	Chris Pepper

B1f. City	B1g. County	B1h. State	B1i. Zip Code	B1l. Site Elevation (AMSL)
Coral Springs	Broward	FL	33076	3.05 meters

B2. Points of Communications: List the names and orbit locations of all satellites with which this earth station will communicate. The entry "ALSAT" is sufficient to identify the names and locations of all satellite facilities licensed by the U.S. All non-U.S. licensed satellites must be listed individually.

Satellite Name and Orbit Location	Satellite Name and Orbit Location	Satellite Name and Orbit Location
ALSAT		
Satmex 5 (116.8 deg. W.L.)		
NSS806 (319.5 E)		

B3. Destination points for communications using non-U.S. licensed satellites. For each non-U.S. licensed satellite facility identified in section B2 above, specify the destination point(s) (countries) where the services will be provided by this earth station via each non-U.S. licensed satellite system. Use additional sheets as needed.

Satellite Name	List of Destination Points
Satmex 5	
(116.8 deg. W.L.)	All locations within footprint
NSS806	All locations within footprint

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS
FCC Form 312 - Schedule B: (Technical and Operational Description)

B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
	5925.000 – 5934.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	6015.000 – 6048.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	6079.000 – 6211.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	6272.000 – 6300.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	6361.000 – 6389.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	6420.000 – 6425.000	T	Linear	43K9G7D	59.20	48.80	Data, QPSK, FEC 7/8, 64kb/s
	5925.000 – 5934.000	T	Linear	43K9G7D	53.90	43.50	Data, QPSK, FEC 7/8, 64kb/s
	6015.000 – 6241.000	T	Linear	43K9G7D	53.90	43.50	Data, QPSK, FEC 7/8, 64kb/s
	6272.000 – 6300.000	T	Linear	43K9G7D	53.90	43.50	Data, QPSK, FEC 7/8, 64kb/s
	6361.000 – 6389.000	T	Linear	43K9G7D	53.90	43.50	Data, QPSK, FEC 7/8, 64kb/s
	6420.000 – 6425.000	T	Linear	43K9G7D	53.90	43.50	Data, QPSK, FEC 7/8, 64kb/s
	5925.000 – 5934.000	T	Linear	8M00G7D	73.30	40.30	Data, QPSK, FEC 7/8, 12mb/s
	6015.000 – 6241.000	T	Linear	8M00G7D	73.30	40.30	Data, QPSK, FEC 7/8, 12mb/s
	6272.000 – 6300.000	T	Linear	8M00G7D	73.30	40.30	Data, QPSK, FEC 7/8, 12mb/s
	6361.000 – 6389.000	T	Linear	8M00G7D	73.30	40.30	Data, QPSK, FEC 7/8, 12mb/s
	6420.000 – 6425.000	T	Linear	8M00G7D	73.30	40.30	Data, QPSK, FEC 7/8, 12mb/s
	3700.000 – 4200.000	R	Linear	43K9G7D			Data, QPSK, FEC 7/8, 64kb/s
	3700.000 – 4200.000	R	Linear	8M00G7D			Data, QPSK, FEC 7/8, 12mb/s
	3625-3700	R	Linear	43K9G7D			Data, QPSK, FEC 7/8, 64kb/s
	3625-3700	R	Linear	8M0067D			Data, QPSK, FEC 7/8, 64kb/s

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and emission is associated. For VSAT networks, include frequencies and emissions for all HUB and REMOTE units.

** Indicate whether the earth station transmits or receives in each frequency band.

EXHIBIT A

RADIATION HAZARD STUDY

RECEIVE-ONLY
NONE REQUIRED

Exhibit B

Frequency Coordination Report

FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

PREPARED FOR
AMNET
CORAL SPRINGS, FL
SATELLITE EARTH STATION

PREPARED BY
COMSEARCH
2002 EDMUND HALLEY DRIVE
RESTON, VIRGINIA 20191
September 27, 2000

TABLE OF CONTENTS

1. CONCLUSIONS

AN INTERFERENCE STUDY CONSIDERING ALL EXISTING, PROPOSED AND PRIOR COORDINATED MICROWAVE FACILITIES WITHIN THE COORDINATION CONTOURS OF THE PROPOSED EARTH STATION DEMONSTRATES THAT THIS SITE WILL OPERATE SATISFACTORILY WITH THE COMMON CARRIER MICROWAVE ENVIRONMENT. OPERATION WILL BE RESTRICTED TO THE BANDWIDTH SHOWN IN SECTION 4 OF THIS REPORT.

2. SUMMARY OF RESULTS

A NUMBER OF GREAT CIRCLE INTERFERENCE CASES WERE IDENTIFIED DURING THE INTERFERENCE STUDY OF THE PROPOSED EARTH STATION. EACH OF THE CASES WHICH EXCEEDED THE INTERFERENCE OBJECTIVE ON A LINE-OF-SIGHT BASIS WAS PROFILED AND THE PROPAGATION LOSSES ESTIMATED USING NBS TN101 (REVISED) TECHNIQUES. THE LOSSES WERE FOUND TO BE SUFFICIENT TO REDUCE THE SIGNAL LEVELS TO ACCEPTABLE MAGNITUDES IN EVERY CASE.

NO CARRIERS REPORTED POTENTIAL INTERFERENCE CASES.

3. SUPPLEMENTAL SHOWING
RE: PART 25.203(C)

PURSUANT TO PART 25.203(C) OF THE FCC RULES AND REGULATIONS, THE SATELLITE EARTH STATION PROPOSED IN THIS APPLICATION WAS COORDINATED BY COMSEARCH USING COMPUTER TECHNIQUES AND IN ACCORDANCE WITH PART 25 OF THE FCC RULES AND REGULATIONS.

COORDINATION DATA FOR THIS EARTH STATION WAS SENT TO THE BELOW LISTED CARRIERS WITH A LETTER DATED SEPTEMBER 22, 2000.

ALLTEL WIRELESS HOLDINGS, LLC.
AT&T BROADBAND
AT&T WIRELESS SERVICES - FT PIERCE, FL
AT&T WIRELESS SERVICES - MIAMI, FL
AT&T WIRELESS SERVICES - W PALM, FL
AT&T WIRELESS SERVICES OF FLORIDA, INC.
BACKLINK LLC
CENTRAL FLORIDA CELLULAR TELEPHONE CO
FLORIDA CELLULAR SERVICE, INC.. - (BMI)
FLORIDA POWER AND LIGHT COMPANY
FLORIDA RSA #2B INDIAN RIVER LTD PRTNRSH
GTE WIRELESS OF SOUTH INC - RICHMOND, VA
I P QUEST
KATLINK LLC
LEE COUNTY OF
PALM BEACH COUNTY FAC DEV & OP
PALM BEACH COUNTY SHERIFFS OFFICE
PRIMECO PERSONAL COMMUNICATIONS,L.P.(FL)
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
SPRINT FLORIDA, INC.
TAPCO - THE ALTERNATIVE PHONE CO
TCI CABLEVISION OF FLORIDA, INC.
WIRELESS ONE HLD CO DBA CELLONE OF SWFLA

4. EARTH STATION COORDINATION DATA

THIS SECTION PRESENTS THE DATA PERTINENT TO FREQUENCY COORDINATION OF THE PROPOSED EARTH STATION WHICH WAS CIRCULATED TO ALL COMMON CARRIERS WITHIN ITS COORDINATION CONTOURS.

SATELLITE EARTH STATION
FREQUENCY COORDINATION DATA
09/22/2000

Company	AMNET	
Earth Station Name, State		CORAL SPRINGS, FL
Latitude (DMS) (NAD83)		26 16 42.3 N
Longitude (DMS) (NAD83)		80 17 34.2 W
Ground Elevation AMSL (Ft/m)		10.01 / 3.05
Antenna Centerline AGL (Ft/m)		14.01 / 4.27
Receive Antenna Type:	A40731	ANDREW CORPORATION ESA73-46
4.0 GHz Gain (dBi) / Diameter (m)		48.5 / 7.3
3 dB / 15 dB Half Beamwidth		0.30 / 0.61
Transmit Antenna Type:	A60731	ANDREW CORPORATION ESA73-46
6.0 GHz Gain (dBi) / Diameter (m)		51.5 / 7.3
3 dB / 15 dB Half Beamwidth		0.22 / 0.44
Operating Mode		TRANSMIT AND RECEIVE
Modulation		DIGITAL
Emission / Receive Band (MHz)		43K9G7D to 8M00G7D / 3625.00 - 4200.00

Emission / Transmit Band (MHz)

(1) 43K9G7D / 5850.00 - 5934.00
43K9G7D / 6015.00 - 6048.00
43K9G7D / 6079.00 - 6211.00
43K9G7D / 6272.00 - 6300.00
43K9G7D / 6361.00 - 6389.00
43K9G7D / 6420.00 - 6425.00

(2) 43K9G7D to 8M00G7D / 5850.00 - 5934.00
43K9G7D to 8M00G7D / 6015.00 - 6241.00
43K9G7D to 8M00G7D / 6272.00 - 6300.00
43K9G7D to 8M00G7D / 6361.00 - 6389.00
43K9G7D to 8M00G7D / 6420.00 - 6425.00

		(1) 43K9G7D	(2) 43K9G7D to 8M00G7D	
Max. Available RF Power	(dBW)/4 kHz)	-2.70	-8.00	-11.20
	(dBW)/MHz)	21.30	16.00	12.80
Max. EIRP	(dBW)/4 kHz)	48.80	43.50	40.30
	(dBW)/MHz)	72.80	67.50	64.30
	(dBW)	59.20	53.90	73.30

Max permissible Interference Power

4.0 GHz, 20% (dBW/1 MHz)	-156.0
4.0 GHz, 0.0100% (dBW/1 MHz)	-146.0
6.0 GHz, 20% (dBW/4 kHz)	-154.0
6.0 GHz, 0.0025% (dBW/4 kHz)	-131.0

Range of Satellite Arc (Geostationary) Degrees Longitude	6.0 W / 143.0 W
Azimuth Range (Min/Max)	97.1 / 257.1
Corresponding Elevation Angles	5.4 / 15.9
Radio Climate	B
Rain Zone	1

Max Great Circle Coordination Distance (Mi/Km)

4.0 GHz	476.3 / 766.6
6.0 GHz	233.2 / 375.4

Precipitation Scatter Contour Radius (Mi/Km)

4.0 GHz	446.9 / 719.3
6.0 GHz	87.7 / 141.2

Note: Horizon is less than 0.2 degrees at all azimuths

Table of Earth Station Coordination Values
09/22/2000

Earth Station Name CORAL SPRING FL
Owner AMNET
Latitude (DMS) (NAD83) 26 16 42.3 N
Longitude (DMS) (NAD83) 80 17 34.2 W
Ground Elevation (Ft/m) 10.01 / 3.05 AMSL
Antenna Centerline (Ft/m) 14.01 / 4.27 AGL
Antenna Model ANDREW CORPORATION ESA73-46
Objectives: Receive -156.0 (dBW /1 MHz)
Transmit -154.0 (dBW /4 kHz) TX Power -2.7 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	4.0 GHz Antenna Gain (dBi)	4.0 GHz Coordination Distance (Km)	6.0 GHz Antenna Gain (dBi)	6.0 GHz Coordination Distance (Km)
0	0.00	97.07	-10.50	406.0	-10.50	197.9
5	0.00	92.09	-9.92	413.2	-10.50	197.9
10	0.00	87.11	-9.50	418.4	-10.50	197.9
15	0.00	82.13	-9.56	417.7	-10.50	197.9
20	0.00	77.16	-9.53	418.0	-10.50	197.9
25	0.00	72.18	-9.53	418.0	-10.50	197.9
30	0.00	67.21	-9.53	418.1	-10.50	197.9
35	0.00	62.23	-9.50	418.4	-10.50	197.9
40	0.00	57.26	-9.59	417.3	-10.50	197.9
45	0.00	52.30	-9.60	417.1	-10.50	197.9
50	0.00	47.33	-8.43	432.1	-10.50	197.9
55	0.00	42.38	-6.45	458.7	-10.50	197.9
60	0.00	37.43	-4.47	486.2	-10.50	197.9
65	0.00	32.50	-2.50	516.1	-10.50	197.9
70	0.00	27.59	-0.54	547.5	-10.50	197.9
75	0.00	22.71	1.87	588.5	-10.50	197.9
80	0.00	17.90	4.34	632.5	-8.40	210.0
85	0.00	13.23	6.27	669.5	-3.73	239.0
90	0.00	8.90	7.50	694.0	1.88	276.5
95	0.00	5.78	10.94	766.5	9.94	375.3
100	0.00	6.12	10.15	749.4	9.26	339.1
105	0.00	9.55	7.50	694.0	-0.72	257.6
110	0.00	13.91	5.59	656.3	-4.41	234.6
115	0.00	18.29	4.18	629.6	-8.79	207.7
120	0.00	22.64	1.92	589.3	-10.50	197.9
125	0.00	26.92	-0.27	552.0	-10.50	197.9
130	0.00	31.14	-1.96	524.6	-10.50	197.9
135	0.00	35.26	-3.60	499.2	-10.50	197.9
140	0.00	39.26	-5.20	475.6	-10.50	197.9
145	0.00	43.10	-6.74	454.7	-10.50	197.9
150	0.00	46.74	-8.20	435.2	-10.50	197.9
155	0.00	50.11	-9.52	418.1	-10.50	197.9
160	0.00	53.12	-9.51	418.2	-10.50	197.9
165	0.00	55.66	-9.52	418.1	-10.50	197.9
170	0.00	57.62	-10.50	406.0	-10.50	197.9
175	0.00	58.87	-10.50	406.0	-10.50	197.9
180	0.00	59.29	-10.50	406.0	-10.50	197.9

Table of Earth Station Coordination Values
09/22/2000

Earth Station Name CORAL SPRING FL
Owner AMNET
Latitude (DMS) (NAD83) 26 16 42.3 N
Longitude (DMS) (NAD83) 80 17 34.2 W
Ground Elevation (Ft/m) 10.01 / 3.05 AMSL
Antenna Centerline (Ft/m) 14.01 / 4.27 AGL
Antenna Model ANDREW CORPORATION ESA73-46
Objectives: Receive -156.0 (dBW /1 MHz)
Transmit -154.0 (dBW /4 kHz) TX Power -2.7 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	4.0 GHz Antenna Gain (dBi)	4.0 GHz Coordination Distance (Km)	6.0 GHz Antenna Gain (dBi)	6.0 GHz Coordination Distance (Km)
185	0.00	58.87	-10.34	408.0	-10.50	197.9
190	0.00	57.62	-9.50	418.4	-10.50	197.9
195	0.00	55.66	-9.55	417.8	-10.50	197.9
200	0.00	53.12	-9.57	417.6	-10.50	197.9
205	0.00	50.11	-9.52	418.1	-10.50	197.9
210	0.00	46.74	-8.20	435.2	-10.50	197.9
215	0.00	43.10	-6.74	454.7	-10.50	197.9
220	0.00	39.26	-5.20	475.6	-10.50	197.9
225	0.00	35.26	-3.60	499.2	-10.50	197.9
230	0.00	31.14	-1.96	524.6	-10.50	197.9
235	0.00	27.02	-0.31	551.3	-10.50	197.9
240	0.00	23.22	1.57	583.2	-10.50	197.9
245	0.00	19.91	3.53	618.3	-10.41	198.4
250	0.00	17.40	4.54	636.3	-7.90	213.0
255	0.00	16.05	5.08	646.5	-6.55	221.2
260	0.00	16.16	5.03	645.6	-6.66	220.5
265	0.00	17.71	4.42	634.0	-8.21	211.1
270	0.00	20.36	3.28	613.7	-10.50	197.9
275	0.00	23.76	1.25	577.6	-10.50	197.9
280	0.00	27.62	-0.55	547.4	-10.50	197.9
285	0.00	31.77	-2.21	520.6	-10.50	197.9
290	0.00	36.13	-3.95	494.0	-10.50	197.9
295	0.00	40.61	-5.74	467.9	-10.50	197.9
300	0.00	45.19	-7.57	443.4	-10.50	197.9
305	0.00	49.83	-9.43	419.3	-10.50	197.9
310	0.00	54.52	-9.62	416.9	-10.50	197.9
315	0.00	59.24	-9.53	418.0	-10.50	197.9
320	0.00	63.99	-9.52	418.2	-10.50	197.9
325	0.00	68.76	-9.59	417.3	-10.50	197.9
330	0.00	73.55	-9.56	417.6	-10.50	197.9
335	0.00	78.34	-9.55	417.8	-10.50	197.9
340	0.00	83.14	-9.53	418.0	-10.50	197.9
345	0.00	87.95	-9.51	418.3	-10.50	197.9
350	0.00	92.76	-10.05	411.5	-10.50	197.9
355	0.00	97.57	-10.50	406.0	-10.50	197.9

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

TIMOTHY O. CRUTCHER
SENIOR FREQUENCY COORDINATOR
COMSEARCH
2002 EDMUND HALLEY DRIVE
RESTON, VIRGINIA 20191

DATED: September 27, 2000

Analysis of Non-Ionizing Radiation for a 7.3 Meter Earth Station System

This report analyzes the non-ionizing radiation levels for a 7.3 meter earth station system. The analysis and calculations performed in this report are in compliance with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependant on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/ Uncontrolled environment are shown in Table 1. The General Population/ Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the far-field, near-field, transition region, between the subreflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure(MPE)

Frequency Range (MHz)	Power Density (mWatts/cm**2)
30-300	0.2
300-1500	Frequency(MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure(MPE)

Frequency Range (MHz)	Power Density (mWatts/cm**2)
30-300	1.0
300-1500	Frequency(MHz)*(4.0/1200)
1500-100,000	5.0

Table 3 contains the parameters that are used to calculate the various power densities for the earth stations.

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Abbreviation	Value	Units
Antenna Diameter	D	7.3	meters
Antenna Surface Area	Sa	II * D**2/4	meters**2
Subreflector Diameter	Ds	109.2	cm
Area of Subreflector	As	II * Ds**2/4	cm**2
Frequency	Frequency	6175	MHz
Wavelength	lambda	300/frequency(MHz)	meters
Transmit Power	P	700.00	Watts
Antenna Gain	Ges	51.5	dBi
Pi	II	3.1415927	n/a
Antenna Efficiency	n	0.63	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:(1)

Distance to the Far Field Region,(Rf) = 0.60 * D**2 / lambda (1)
= 658.1 meters

The maximum main beam power density in the Far Field can be determined from the following equation:(2)

On-Axis Power Density in the Far Field,(Wf) = Ges * P / 4 * II * Rf**2 (2)
= 18.166 Watts/meters**2
= 1.817 mWatts/cm**2

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:(3)

Extent of the Near Field,(Rn) = D**2 / (4 * lambda) (3)
= 274.2 meters

The maximum power density in the Near Field can be determined from the following equation:(4)

Near Field Power Density,(Wn) = 16.0 * n * P / II * D**2 (4)
= 42.408 Watts/meters**2
= 4.241 mWatts/cm**2

3. Transition Region Calculations

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance Rt can be determined from the following equation:(5)

Transition region Power Density,(Tt) = Wn * Rn / Rt (5)
= 4.241 mWatts/cm**2

4. Region between Main Reflector and Subreflector

Transmissions from the feed assembly are directed toward the subreflector surface, and are reflected back toward the main reflector. The most common feed assemblies are waveguide flanges, horns or subreflectors. The energy between the subreflector and the reflector surfaces can be calculated by determining the power density at the subreflector surface. This can be determined from the following equation:(6)

Power Density at Feed Flange,(Ws) = 4 * P / As (6)
= 298.967 mWatts/cm**2

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the subreflector. The area is now the area of the main reflector aperture and can be determined from the following equation:(7)

Power Density at the Main Reflector Surface,(Wm) = 4 * P / Sa (7)
= 66.899 Watts/meters**2
= 6.690 mWatts/cm**2

6. Region between Main Reflector and Ground

Assuming uniform illumination of the reflector surface, the power density between the antenna and ground can be determined from the following equation:(8)

Power Density between Reflector and Ground,(Wg) = P / Sa (8)
= 16.725 Watts/meters**2
= 1.672 mWatts/cm**2

Table 4. Summary of Expected Radiation levels for Uncontrolled Environment

Region	Calculated Maximum Radiation Power Density Level (mWatts/cm**2)	Hazard Assessment
1. Far Field (Rf) = 658.1 meters	1.817	Potential Hazard
2. Near Field (Rn) = 274.2 meters	4.241	Potential Hazard
3. Transition Region Rn < Rt < Rf, (Rt)	4.241	Potential Hazard
4. Between Main Reflector and Subreflector	298.967	Potential Hazard
5. Main Reflector	6.690	Potential Hazard
6. Between Main Reflector and Ground	1.672	Potential Hazard

Table 5. Summary of Expected Radiation levels for Controlled Environment

Region	Calculated Maximum Radiation Power Density Level (mWatts/cm**2)	Hazard Assessment
1. Far Field (Rf) = 658.1 meters	1.817	Satisfies FCC MPE
2. Near Field (Rn) = 274.2 meters	4.241	Satisfies FCC MPE
3. Transition Region Rn < Rt < Rf, (Rt)	4.241	Satisfies FCC MPE
4. Between Main Reflector and Subreflector	298.967	Potential Hazard
5. Main Reflector	6.690	Potential Hazard
6. Between Main Reflector and Ground	1.672	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

7. Conclusions

Based on this analysis it is concluded that the FCC RF Guidelines have been exceeded in the specific regions of Tables 1 and 2. The applicant proposes to comply with the Maximum Permissible Exposure (MPE) limits of 1 mW/cm2 for the Uncontrolled areas and the MPE limits of 5 mW/cm2 for the Controlled areas by one or more of the following methods:

Means of Compliance Uncontrolled Areas

This antenna will be located in a fenced area. The area will be sufficient to prohibit access to the areas that exceed the MPE limited. The general public will not have access to areas within ½ diameter removed from the edge of the antenna.

Since one diameter removed from the main beam of the antenna or ½ diameter removed from the edge of the antenna the RF levels are reduced by a factor of 100 or 20 dB. None of the areas exceeding the MPE levels will be accessible by the general public.

Radiation hazard signs will be posted while this earth station is in operation.

The applicant will ensure that no buildings or other obstacles will be in the areas that exceed the MPE levels.

Means of Compliance Controlled Areas

The earth station's operational will not have access to the areas that exceed the MPE levels while the earth station is in operation.

The transmitters will be turned off during antenna maintenance.

Exhibit C

FAA Notification Exemption

FAA notification is not required, per Part 17 (17.14 a) of the FCC rules. The proposed antenna will be located with existing structures of equal or greater height.

Exhibit D

Coordination with Another Country

The coordination contours of this earth station cross into the territories of the Bahamas and Cuba.

FCC Form 312
Exhibit E

OWNERSHIP

The applicant is a Delaware corporation. Its ownership is as follows:

Name	%	Citizenship
Gerald J. Kazma	50	Canada
Michael D. Kazmas	50	Canada

Both Gerald J. Kazma and Michael D. Kazma are U.S. resident aliens.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

Amendment of the Commission's	)
Rules with Regard to the 3650-3700 MHz	)
Government Transfer Band,	)
ET Docket 98-237, Notice of Proposed	)
Rulemaking and Order	)

REQUEST FOR WAIVER

Amnet US, by counsel, hereby respectfully requests a waiver of the Commission's rules restricting construction and operation of fixed satellite earth stations in the 3650-3700 MHz band (the "extended C-Band"). This waiver request is being filed in conjunction with a modification application requesting permanent authorization to operate a downlink in the extended C-Band (3625-3700 MHz) with a licensed fixed earth station antenna in Coral Springs, Florida. A copy of the application that is being filed simultaneously is attached. The following is shown in support thereof:

Licensing History of The Coral Springs Earth Station

The proposed extended C-Band downlink will operate as part of a recently authorized fixed satellite earth station licensed to Amnet (E000354; SES-LIC-20000712-01155). In addition Amnet has pending applications for two additional antennae – one in the Ku-Band and one in the C-Band – at the Coral Springs facility. Amnet is separately applying for modification of the E000354 facility for authority to transmit in the extended C-Band (5859-5925 MHz). Amnet seeks this waiver of the Commission's rules to operate the corresponding downlink into the United States in the extended C-Band at the

Coral Springs site in order to take advantage of additional satellite capacity available to Amnet at the site. Grant of this request will enable Amnet to provide additional flexibility and services to its international customers.

Background of Extended C-Band Freeze and Relief Orders

Amnet has been offered extended C-Band capacity on the New Skies satellite 806 ("NSS806"). New Skies is a wholly-owned United States subsidiary of New Skies Satellite N.V. ("New Skies"). New Skies is one of only three satellite systems that currently offers global satellite coverage. The New Skies satellite network is currently comprised of five in-orbit satellites operating in the Ku-Band, standard C-Band and extended C-Band. Currently an independent company, New Skies was divested from Intelsat effective December 1, 1998. Eighteen days after the creation of New Skies, the Commission issued an order freezing all licensing activities for fixed satellite earth stations in the extended C-Band. *See Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band,* ET Docket 98-237, *Notice of Proposed Rulemaking and Order,* 14 FCC Rcd. 1295 (1998) (the "*Freeze Order*"). As a result of the *Freeze Order*, Amnet (and New Skies) was immediately restricted in its ability to utilize the extended C-Band for operations in the United States

New Skies has actively pursued relief from the freeze on fixed satellite operations in the extended C-Band, both independently and as a part of the an ad hoc coalition of satellite operators, customers and potential telemetry, tracking and control users (the "C-Band Coalition"). *See Request for Emergency Relief,* filed March 26, 1999, and *Modified Request for Emergency Relief and Request for Expedited Action,* filed October 28, 1999, by New Skies; Letter from the C-Band Coalition filed December 16, 1999; *see also ex*

parte notices, filed April 9, 12, 13, 15 and 19, 1999, November 3 and 4, 1999, December 22 and 28, 1999, by New Skies. New Skies' submissions demonstrate that the extended C-Band is necessary to provide critical relief from the congestion in the over-crowded standard C-Band. More importantly, by restricting its access to affordable space segment capacity, the *Freeze Order* acts as a substantial impediment to Amnet's growth and ability to compete in the increasingly competitive fixed satellite services market place.

On May 17, 2000, seventeen months after instituting the *Freeze Order*, the Commission adopted an order providing partial and immediate relief from the freeze on operations in the extended C-Band. *See Amendment of the Commission's Rules with Regard to the 3650-3700 MHz Government Transfer Band,* ET Docket 98-237, *Memorandum Opinion and Order,* FCC 00-181 (adopted May 17, 2000) (the "*Relief Order*"). In the *Relief Order*, the Commission agreed to reopen access to the extended C-Band spectrum for fixed satellite users in the United States immediately but on a limited basis. Specifically, the *Relief Order* will allow modifications to existing fixed satellite earth stations and construction of new stations in the extended C-Band so long as the station is within a ten mile radius of an existing licensed earth station operating in the extended C-Band.

The Coral Springs site is approximately twenty-two miles from the nearest existing extended C-Band earth station located at 25-58-32 NL, 80-21-11 WL (Miramar). Amnet hereby seeks a waiver of the ten-mile radius restriction on the scope of relief provided in the *Relief Order* to allow it to operate a downlink at the Coral Springs site in the extended C-Band as provided in the attached application.

Need for Waiver

Amnet currently has one C-Band antennae licensed to the Coral Springs site. In conjunction with the extended C-Band *uplink* services Amnet intends to provide to international customers from the Coral Springs facility, Amnet would benefit from a greater ability to serve its customers if *downlink* operations in the extended C-Band were available at the Coral Springs site. With capacity available in the extended C-Band for both uplink and downlink services, Amnet would have increased flexibility to provide critical Internet backbone services that link users in the United States with users throughout the world, as well as other international broadband services (including video news feeds, video programming and high speed data services) to existing and new customers. The grant of this waiver request and the underlying application would thereby increase competition and promote the public interest.

The grant of this waiver request for a single site in Florida would not substantially prejudice the availability of the extended C-Band spectrum for future terrestrial use. As the Commission explained in the *Relief Order*, "the introduction of new extended C-Band earth stations in close proximity to an existing grand fathered extended C-Band earth station will not substantially impede the opportunities for the introduction of fixed [terrestrial] services in the 3650-3700 MHz band." *Relief Order*, ¶ 4. The Coral Springs site, although more than ten miles from the Miramar site, is still "proximate" to the existing site, in accordance with the standard established in the Commission's *Relief Order*. Indeed, the difference between ten miles and twenty-two miles is not significant. Moreover, the *Relief Order* does not describe any engineering or other factor on which the Commission relied in selecting a ten-mile limit that would justify denying this waiver

request for technical reasons. The grant of this waiver request therefore will not significantly limit the available spectrum for use by future terrestrial services, nor will it create a material impediment to any future licensee in the band who would already be subject to the existing earth station operations in the extended C-Band at the Amnet location.

In addition, Amnet did not have the ability or opportunity to "obtain suitable real estate for the placement of new extended C-Band earth stations near grand fathered extended C-Band earth stations," as suggested by the Commission in the *Relief Order*. Amnet believes the grant of this waiver and the underlying application will serve the public interest by promoting competitive new services in the international telecommunications marketplace at the earliest possible opportunity, helping to alleviate the shortage of space segment capacity and giving the companies the opportunity to make efficient and effective use of a significant existing satellite asset. The grant of this waiver by the Commission would promote the public interest.

Eligibility for Waiver

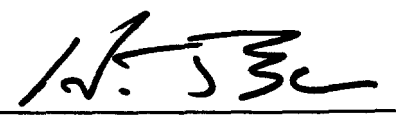
This application contains all of the legal and technical information required by the Commission's rules to support the grant of this waiver request and the authorization of the use of the extended C-Band at the Coral Springs site. Coordination with commercial operators is not required prior to the use of the extended C-Band, and there is no technical obstacle to the grant of this waiver request and the underlying application.

CONCLUSION

Based on the foregoing Amnet respectfully requests prompt action by the Commission on this waiver request and the underlying application for authority to operate in the extended C-Band.

Respectfully submitted,

AMNET US

By: 

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September 28, 2000

HJB/de
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